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**Citation for published version:**

Los, B 2018, Permissive subjects and the decline of adverbial linking in the history of English. in H Cuyckens, H De Smet, L Heyvaert & C Maekelberghe (eds), *Explorations in English Historical Syntax*. Studies in Language Companion Series, vol. 198, John Benjamins Pub Co, pp. 23-50.  
<https://doi.org/10.1075/slcs.198.02los>

**Digital Object Identifier (DOI):**

[10.1075/slcs.198.02los](https://doi.org/10.1075/slcs.198.02los)

**Link:**

[Link to publication record in Edinburgh Research Explorer](#)

**Document Version:**

Peer reviewed version

**Published In:**

Explorations in English Historical Syntax

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“Permissive” subjects and the decline of adverbial linking in the history of English

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Short title for running head:

“Permissive” subjects and the decline of adverbial linking

# “Permissive” subjects and the decline of adverbial linking in the history of English

## Abstract

Earlier work by Los & Dreschler (2012) and Komen et al. (2014) offer quantitative evidence of a decline in clause-initial adverbials as discourse linkers in the history of English, and argued that subjects have taken over much of the function of discourse-linking that was earlier performed by adverbials. The greater functional load of the subject called for more flexibility in which types of thematic roles could be expressed by subjects, and for more strategies to create subjects, like crosslinguistically rare passives. The present paper draws attention to another mechanism that facilitates “permissive subjects” in Present-Day English: causative/ergative valency alternations of the type *Amazon shipped the order/the order has shipped*. We present the morphosyntactic origin of the alternation, and report in more detail on the workings of discourse linking in Old English texts, explaining why “permissive” subjects were not required at that stage.

keywords: Old English clause structure – information structure – Old English style – adverbials – subjects – valency

## 1. Introduction

There is a growing body of research to indicate that the functional load of the subject in English has increased from Middle English onwards. In narratives, English subjects primarily encode

protagonists, mind-possessing agents who play a role in the events that are the narrative's concern. There is evidence from psycholinguistic experimental work that English speakers differ from German speakers in that they are more inclined to mention non-protagonists, like *The wind* in (1):

- (1) A young man is surfing. *The wind* is blowing him off the board. (Carroll et al. 2004: 190)

Although the German equivalent of the verb *blow* allows a non-animate subject like *the wind*, German speakers in this experiment tended to keep focused on the protagonist, the young man, with descriptions equivalent to Present-Day English (PDE) *He is blown off the board* (Ibid.). Carroll et al. (2004) ascribe this finding to a difference in narrative perspective: the German speakers tell a story from the perspective of the protagonist, while the English speakers take an outsider's view, like a camera. Los (2012) hypothesizes that this difference may have come about relatively recently, with Old English (OE) being more like German and Dutch. If PDE subjects are more likely to encode non-protagonists than in earlier times, this would increase the functional load of subjects.

A second reason why the functional load of subjects can be hypothesized to be increased in the course of the history of English is another contrast between PDE and German: the finding by Rohdenburg (1974), and after him by Hawkins (1986), that PDE allows subjects that would be expressed by adverbials in German, and, we may add, in Present-Day Dutch, cf. (2b):

- (2) a. This *loses* us the best centre forward (Hawkins 1986: 58-61, from Rohdenburg 1974)

b. Hiermee zijn we onze beste spits kwijt  
herewith are we our best centre-forward lost  
‘With this, we have lost our best centre forward’

Los and Dreschler (2012) and Dreschler (2015) have shown that adverbial links of the type in (2b) (‘with this’) decrease in Middle English.

Komen et al. (2014) present quantitative support for the idea that the functional load of subjects increases: PDE narratives have higher rates of inanimate subjects than Old English (OE), which is what we would expect if the subject starts to express non-protagonists like *The wind* as in (1) and discourse links like *This* as in (2). They also find higher rates of subject-switch between clauses, which is what we would expect if the functional load of the subject increases.

High rates of subject switch can be expected to require more topic-reactivation by full nominals (names and descriptions like *Her husband* rather than pronominal subjects like *He*), as the subject is no longer reserved for protagonists only, which leads to a lower ratio of pronominal versus nominal subjects; for the same reason, we would expect higher rate of subject ellipsis in OE (as has also been found for the contrastive English/German study of Carroll & Lambert 2003): if the subject’s primary function is to express the protagonist, it should be easier to recover the referents of ellipsed subjects than if the subject is routinely used for other functions. These hypotheses were confirmed by a pilot study in Los (2009), as well as a larger scale investigation in Komen et al. (2014).

The examples in Rohdenburg (1974) and Hawkins (1986) show that English subjects are extremely “permissive” compared to those in related languages such as German, with verbs normally associated with animate subjects, like *lose* in (2), showing up with inanimate subjects,

in a variety of semantic roles. The focus of the present paper is on how the increase in functional load of the subject is accompanied, and accommodated, by changes elsewhere in the grammar.

The paper is structured as follows. Section 2 discusses “permissive subjects” in more detail as a specialty of PDE. Section 3 shows that the various syntactic positions available in OE and how they could be exploited to distribute given and new information over the clause; this section highlights the discourse-linking role of first-position adverbials, usually encoded as prepositional phrases (PPs). Section 3 and 4 presents the phenomenon of permissive subjects in the context of flexible argument structure, and explores some of the accidental losses in the morphology that led to the multiple argument structures as a productive process. Over time, given enough examples, such patterns apparently attracted so many members that the possibilities for verbs developing alternative argument structures snowballed and acquired a dynamics of its own, so that it was no longer a case of the valency alternation having to be sanctioned by usage for each individual verb; instead, groups of verbs participate in the alternation in their entirety, so that in PDE any verb in *-ify* or *-en* has both intransitive and transitive uses. Sections 5 and 6 provide some further discussion about the difficulty of investigating the increase of the functional load of the subject in terms of a straightforward scenario of replacement or competition: adverbial discourse links have themselves acquired a different role in that they are now part of “late subject” constructions, which are mainly presentational (section 5). PDE is also very different from its West-Germanic cousins in that it does not require Tail-Head-linking in narratives, which may have meant that the decline of adverbial discourse links triggered the loss of Tail-Head-linking and hence decreased the need for discourse-linking itself. Section 7 concludes.

## 2. Permissive subjects

Exactly how crosslinguistically unusual English subjects are is brought home by work on machine translation. Compare these English/Portuguese pairs, where English can have the same verb for ergative/causative pairs but Portuguese has to go for two different verbs entirely (all examples from Santos 1988); the Portuguese verbs are in italics:

(3) a. he returned – ele *voltou*

b. he returned the book – ele *devolveu* o livro

(4) a. he quit – ele *desistiu*

b. he quit the job – ele *deixou* o trabalho

The same goes for active/passive pairs of such causative/ergative pairs:

(5) a. the program runs – o programa *funciona*

b. the program is run – o programa *é executado*

These examples show that the “permissive subjects” in PDE are accommodated by a flexible argument structure (of verbs like *return*, *quit*, and *run*); we will return to such valency issues in section 4.

Another source of problems is passives of Exceptional Case-Marking (ECM) constructions like *I intend the program to work with two different kinds of text files, I have shown*

*the problems to be caused by X*, where the direct objects *the program* and *the problems* do not receive their theta-role from the verb (cf. \**I intend the program*, #*I have shown the problem*) but from the lower verb, the infinitive. When passivized, such direct objects in ECM-constructions with verbs like *intend* (a verb of thinking) and *show* (a verb of declaring) will end up as subjects. It is these passives that appear to be at the heart of the alternations shown in (6)-(7):

(6) a. I intend – eu *tenciono*

b. the program is intended – o programa *destina-se*

cf. The program is intended to work with two different kinds of text files

(7) a. the problem shows – o problema *aparece*

b. the problem was shown – o problema *foi mostrado*

cf. The problem was shown to be in the local loop

Like the proliferation of valency alternations, which will be dealt with in section 4 below, the ECM-construction with verbs of thinking and declaring are recent, dating from late Middle English (see eg. Dreschler 2015, Fanego 1992, Fischer 1989, Los 2005, Warner 1982). All authors note that there is an asymmetry between actives and passives at the emergence of the construction with these verbs that persists into the present-day, with many verbs not having an acceptable active counterpart; a PDE example is (8a); see also Postal (1974).

(8) a. \*They *reported* this mushroom to have a lobster like flavor when cooked.



b. This mushroom *is reported* to have a lobster like flavor when cooked.

(<http://caldwell.ces.ncsu.edu/2015/01/336308/>. Accessed Oct 19, 2015, via

WebCorp, <http://www.webcorp.org.uk>)

Birner & Ward (2002) label the passive ECM-construction an “information-packaging” device, its primary function being to allow discourse-old information to be expressed as a subject. PDE examples like (8b) demonstrate that such passive ECM-constructions with these verbs make subjects of inanimate, non-agentive entities.

I have claimed in earlier work (Los 2005: 257, Los 2009) that an entity like the *mushroom* in (8b) would tend to be expressed by an adverbial in Dutch and German, which will have to resort to constructions equivalent to *About this mushroom reports one/is it reported that it has a lobster like flavour when cooked*, as they did not develop the ECM with verbs of thinking and declaring. As the rates of first position adverbials expressing discourse links declines from Middle English onwards, passive ECMs are a way around the restrictions on how such “unmarked themes” (sentence beginnings conveying “given” information without any additional sense of prominence or contrast; see eg. Downing & Locke 1995, following Halliday 1967, 1968) could be expressed – by subjects.

The next section will look at King Alfred dealt with the ECM-constructions he found in the Latin *Vorlage* of his translation of Boethius’ *De Consolatione Philosophiae*, the type of argumentative text that is the natural habitat for verbs of thinking and declaring, and how Ælfric uses one such verb, *to cnawan* ‘understand, interpret’ in his original OE argumentative prose. The flexibility of OE syntax fitted the purposes of information structure like a glove, particularly when it came to making links with the immediately preceding discourse; when this flexibility was lost, the default expression for such links was the subject.

### 3. Adverbial positions and discourse linking in Old English

When King Alfred translated Boethius' *De Consolatione Philosophiae* into Old English, he came across ECM constructions with passives of verbs of thinking and declaring, as in (9a), (10a) and (11a), where modern translations, as in (9b), (10b) and (11b), routinely use a passive ECM; the verb and its dependent infinitive are given in italics. King Alfred's translation makes no attempt to create a non-finite construction but uses an active reporting (9c) or thinking (10c) verb, or impersonal verb (11c), followed by a subjunctive clause:

- (9) a. *uti summa cardo atque causa expetendorum omnium bonitas esse iure credatur.*

(<http://data.perseus.org/citations/urn:cts:latinLit:stoa0058.stoa001.perseus-lat1:3.P10>; O'Donnell 1990)

b. goodness *is* rightly *believed to be* the sum and hinge and cause of all things desirable. (James 1897)

c. Forðæm we cweðað þæt þæt hehste good sie        se hehsta hrof eallra gooda  
therefore we say    that that highest good is-SUBJ the highest roof of-all good  
and sio hior ðe eall good on hwearfað, and eac ðæt þing þe mon eall good fore deð  
and the hinge that all good on turns and also that thing that one all good for does  
<Bo 34.88.10><sup>1</sup>

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<sup>1</sup> The reference to an OE text enclosed in < > follows the system of short titles as employed in Healey and Venezky (1985 [1980]) (in turn based on the system of Mitchell, Ball and Cameron 1975, 1979). It is identical to the TEI

(10) a. idcirco enim sufficientia petitur, quoniam bonum *esse iudicatur* (O'Donnell 1990; <http://data.perseus.org/citations/urn:cts:latinLit:stoa0058.stoa001.perseus-lat1:3.P10>; O'Donnell 1990)

b. For the very reason why independence is sought is that it *is judged good* (James 1897)

c. þi        men    secap god genog        þe hi    wenað þæt ðæt sie        þæt  
therefore people seek good sufficiency that they think that that is-SUBJ that  
hehste good <Bo 34.88.1>  
highest good

(11) a. cui sententiae consequens est ut tum demum grauioribus suppliciis urgueantur  
cum impuniti *esse creduntur*.

(<http://data.perseus.org/citations/urn:cts:latinLit:stoa0058.stoa001.perseus-lat1:4.P4>; O'Donnell 1990)

b. from which point of view it follows that the wicked are afflicted with more  
severe penalties just when they *are supposed to escape* punishment (James 1897)

c. Git hit gebyreð þæt ðe ðincð ðæt þa orsorgan bioð ungesæligan  
yet it is-right that to-you seems that the unpunished are unhappier  
þonne þonne þa gewitnodan.<Bo 28.121.2>  
than than the punished

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reference in the DOEC (=Dictionary of Old English Corpus, also known as the Toronto Corpus), which means that line numbers refer to the beginning of the sentence rather than the line in which the relevant structure occurs.

These OE translations accordingly have to add animate subjects that are not in the *Vorlage*, all with generic reference: *we* in (9c), *people* in (10c). But even if the subject is animate, as in (11), Alfred has to resort to a finite construction, as the non-finite construction is not available to him.

Of particular interest to me are cases where verbs of thinking or declaring are used to express an opinion about a topic that is newly introduced, like *this mushroom* in (8b), as such subjects are discourse links. Boethius' Latin, as a *pro-drop* language, does not rely on pronominal linking for discourse coherence to the extent that OE does, but the linking expressions Alfred uses (backward linking *Forðæm* 'For that (reason)' in (9c), the forward-linking *þi* 'that' with instrumental case, also conveying the meaning 'for that (reason)' in (10c)) do not refer to *goodness* or *sufficiency*; those referents appear as subjects in the embedded subjunctive clause, either, as in (9c), with a demonstrative/definite article (*þæt hehste good* 'the highest good') to signal to the hearer/reader that the entity is identifiable (because it is in fact the global topic of the passage) or by an independent demonstrative pronoun *ðæt* 'that' as in (10c), referring back to *god genog* 'a sufficiency of good'. Information-structurally, this is similar to the Dutch/German expression of (8b) but without the initial link: *one reports/it is reported that it has a lobster like flavour when cooked* in that there, too, the entity shows up as given information (*it*) in the embedded clause.

To see what happens in original rather than translated OE prose, the remainder of this section looks at one particular verb of thinking, *to cnawan* 'know, acknowledge, understand, interpret', a verb very typical of the vocabulary used by Ælfric in his homilies (argumentative, exegetical, discourse). All the examples below are from his works. The information about word order for these examples employs the traditional labels prefield, middlefield and postfield to refer to various salient domains within the architecture of the West-Germanic clause.

Using this terminology carries the risk that they impose standard structural notions from what we know about Present-Day Dutch and German onto OE syntax, so we need a number of disclaimers here: (i) these labels abstract away from the reanalysis to base VO word order which is already in evidence in Old English (see eg. Pintzuk & Taylor 2006, Taylor & Pintzuk 2012), but this paper is mostly concerned with the left edge of the main clause rather than the underlying position of the object; and (ii), although the current consensus is that there is finite verb movement in OE (following seminal work by van Kemenade 1987), we need to stress that this movement is not as syntactically motivated as V2 in Dutch and German where its main function is to signal clause type (main clauses, conditional clauses). The consensus is that there are two landing sites for verb movement in OE, as identified by eg. Haeberli (2002) and van Kemenade & Westergaard (2012), rather than the single position usually assumed for Dutch and German. Our concern is the lower of these positions, where the finite verb may end up, on the surface, as V3, particularly if the first constituent is an object or an adverbial, and the subject is a pronoun (see again van Kemenade 1987), as in (13) below, where we will discuss this matter further.

The argument structure of *točanawan* calls for a subject and an object, and Ælfric's particular usage also calls for an adverbial: a person (=subject) understands something (=object) about something (=adverbial) or because of something (=adverbial). The first example, (12), is of *točanawan* in a subclause, which shows, in this particular case, the basic SOV order of subject – object – verb; the pronominal adverb *þæron* 'about that' is probably a postmodification of *sum andgit* inside the object-NP and does not occupy an adverbial slot at the level of the clause. It is cataphoric, linking to the following *how*-clause which explicates the content of *sum andgit*. This is a type of CLAN ("Clause-and-Nominal", see Warner 1982) where a relatively vague nominal element in one clause has its semantics spelled out in a second clause that is syntactically quite loosely constructed; this is a striking feature of almost all of these *točanawan*-clauses in Ælfric.

subject – object – TOCNAWAN – Vfinite (MAGON) – postfield

(12) We wyllað eow secgan sume swutelunge nu be þam halgum tidum  
we wil you tell some explanation now about the holy feastdays  
ðe we healdað and weorðiað on geleaffullum cyrcum mid Godes lofsangum,  
that we hold and celebrate in orthodox church with God's psalms  
þæt ge sum andgit þæron *to cnawan* magon, hu eall ðæs  
so-that you some understanding about-that acquire may, how all the  
geares ymbegang Gode ælmihtigum ðeowað. <ÆHom 11, 1>  
year's round God Almighty serves  
'we will tell you now some explanation about the holy feastdays that we observe  
and celebrate in the Christian church with God's psalms, so that you may acquire  
some understanding on that, i.e. how the entire round of the year serves God  
Almighty.'

An example more central to the focus of this paper is (13), where we have a main clause that starts with an adverbial containing a link to the previous discourse:

Adverbial - subject – Vfinite (MÆG) - object - TOCNAWAN – postfield:

(13) Be ðisum þeawum man mæg þæne man *to cnawan*,  
by these habits one may the man recognize  
hwæðer him godes gast on wunige oððe þæs gramlican deofles.

whether him God's spirit in dwells or of-the cruel devil

<ÆSpir 64>

‘By this conduct one may distinguish a man who is inhabited by God’s spirit from a man who is inhabited by the spirit of a cruel devil.’

The vague NP *þæne man* is further defined by a following clause that is only loosely connected; PDE would be more likely to have (i) a relative clauses as in the PDE translation, or (ii) a more tightly constructed indirect question, as in *By this conduct one may tell whether a man is inhabited by God’s spirit or by the spirit of a cruel devil*, or of course a permissive subject and a flexible-valency verb like *show*, as in *This conduct shows whether a man is inhabited by God’s spirit or by the spirit of a cruel devil* (see eg. (7a-b) above). Many if not all of the *to cnawan*-examples in this section have the same generic subjects as Alfred’s translations in (9)-(11): ‘By this *we, people, you, one* may perceive...’ as well as passives like ‘By this it *may be perceived*’ which very readily allow rephrasing with a PDE *show* and a “permissive” subject *This* that either links back, or links forward: *This shows that...*

The set of generic expressions include the form *man*, as in (13). This *man* (the first occurrence of *man* in the example) is etymologically the same form as the second *man* ‘man’, but it is a grammaticalized form, no longer a noun but a pronoun (see eg. Van Bergen 2000) and an ultra-indefinite pronoun at that, only available in subject form, and discursively inert (Los 2002) – a generic placeholder. Statements with generic *man* can be reworded by passives in OE (as is also the case for Dutch *men* and German *man*); and passives are in fact the best option in PDE, given the fact that PDE ‘one’ has been shown not to be an adequate replacement of OE *man* (see Seoane Posse 2000, Los 2002). Ælfric uses the alternation between passives and *man* to vary the

wording of his exegetical explanations: *by this we may recognize/by this one may recognize/by this is recognized...* An example of *tocnawan* in the passive is (14):

Adverbial – Vfinite (BEOÐ) – subject – TOCNAWAN – postfield:

(14) On ðam beoð cristene men tocnawene. gif hi rihtlice cristene beoð.

by that are Christian men recognized if they truly Christians are

<ÆCHom II, 40 300.30>

‘By that Christians are recognized as true Christians’

What example (13) above also shows is how finite verb movement in OE is different from V2 in Dutch and German: two constituents precede the finite verb.<sup>2</sup> *Man* is in the position of pronominal subjects (one of the diagnostics for its pronominal status in OE, van Bergen 2000). Example (14), with its nominal rather than pronominal subject, has only a single constituent before the finite verb. Note that the verb itself is supposed to have moved to the same position in (13) and (14) – the lower landing site. OE has more positions for subjects than Dutch and German, and this is one of the reasons why OE can accommodate the requirements of information structure so readily. I have argued elsewhere (Los 2012) that the original motivation for the lower landing site may have been information-structural rather than syntactic, with the finite verb functioning as a demarcator of given and new information domains.<sup>3</sup> Note that in (13),

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<sup>2</sup> Note that I use the term *constituent* as an equivalent of XP (a phrase) as opposed to X (a head); the finite verb is a head (V) and has moved to another head-position (‘head-to-head movement’). Any mention of *constituent* in this paper, then, excludes the moved finite verb.

<sup>3</sup> See also Hinterhölzl & Petrova (2010: 319), although they present a unified scenario in which the two landing sites in OE derive from a single site for finite verb movement in earlier Germanic. The competition for the first position in languages generally makes it more likely that OE represents the original situation with two landing sites, with the verb-second rule in Present-Day Dutch and German a simplification.



the adverbial and the pronoun are “given” information; personal pronouns are “given” by definition. That movement to the lower landing site still has this purely information-structural function in OE is unlikely. We have already seen that the referential adverbials in first position can be forward-looking (like *þi* in (10c)) as well as backward-looking (like *Forðæm* in (9c)). The asymmetry as found in (13) and (14) might have been reanalysed at a later point as syntactic, with the higher subject position, the one to the left of the lower landing site, reserved for pronouns, while the one on the right, originally for “new” subjects which naturally would not be pronouns but full nominals, a position for full nominals. However, there are many examples of nominal subjects to the left of the finite verb (Koopman 1998, Haeberli 2002); there is evidence that such nominal subjects in the higher, pronominal position tend to be both given and specific (eg. Biberauer and van Kemenade 2013), which might argue that finite verb movement to the lower position is still discourse-sensitive in (some varieties of) OE. Dreschler’s (2015) investigation of nominal subjects after clause-initial PPs gives quite high rates for nominal subjects in this high pronominal position in PP-initial main clauses in *Orosius* (55.4%), against much lower rates in *Ælfric’s Lives of Saints* (12.4%) (Dreschler 2015: 259). The type of PP plays a role, with nominal NPs in the high position being particularly frequent after *after*-PPs, as does the type of verb, with unaccusatives disfavouring such nominal NPs. The information status of the nominal NPs in the high position, which could have been expected to be “given” on the basis of the findings of Biberauer and van Kemenade (2013), turn out to be less clearcut; although there is a clear preference for new subjects to be in postverbal position, there are 16 instances in *Orosius* of new subjects in the high position (Dreschler 2015: 261); in 13 of these 16 instances, the subject was a proper name, introducing a new referent or reactivating an earlier referent, as in (15):

- (15)      *Æfter þæm Pompeius se consul for            on    Numentinas, Ispania þeode*  
               *After   that Pompey    the consul marched upon Numentines Spain people*  
               ‘After this Pompey, the consul, marched upon the Numentines, a people of  
               Spain’ <Or 5 2.115.22 (Dreschler 2015: 261)>

The other two examples Dreschler provides to illustrate this pattern start with *On þæm dægum* ‘in those days’ and *On þære tide* ‘At that time’, which could suggest that the OE translator of the *Orosius* used the *PP – full NP – Vfinite* order to mark an episode boundary. This matter has to be left to future research.

The schema in (16) shows that OE syntax makes are at least four positions available for subjects. *V* stands for the non-finite verb, if present, and for the original position of the finite verb *v*; “...” stands for the base positions for adverbials, complements/objects to the left of *V*, which will be spelled out in more detail in (17).

(16)

[Prefield: subject<sub>1</sub> – subject<sub>2</sub> – *v*] [Middlefield: subject<sub>3</sub> – ... – *V*] [Postfield: subject<sub>4</sub>]

The prefield has two positions, both derived (it could be argued that the prefield is itself created by movement of the finite verb); “Subject<sub>2</sub>” labels the “high” position to the left of the lower landing site of the finite verb *v*. The middlefield position could be regarded as basic, whereas the position in the postfield is the so-called “late subject” position (see Warner 2007).<sup>4</sup> This clausal

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<sup>4</sup> I am abstracting away from whether these subjects end up “late” by a Heavy NP Shift-like operation (to a position adjoined to the VP) or whether the subject remains low in the structure, which is a possibility for the subjects of unaccusative verbs, as they start out as internal objects; see again Warner (2007) or van Kemenade (1997).

architecture provides two positions for subjects that encode new information to be positioned towards the end of the clause, after the finite verb, and shows the flexibility of the system.

The options for positioning adverbials in given in (17):

(17)

[Prefield: adverbial<sub>1</sub> - ... - v][Middlefield: – adverbial<sub>2</sub> – ... V][Postfield: adverbial<sub>3</sub>]

Although PDE can be argued to have a clause-initial, medial and clause-final position for adverbials, too, there are important differences in what type of adverbials the PDE positions cater for. The default position in PDE is clause-final, where adverbials can be limitlessly stacked; the default position in Dutch and German, and by extension in OE. is the middlefield position, again with limitless stacking. The medial position in PDE is restricted to adverbs rather than phrases, particularly manner adverbs, and stacking is very limited.

The clause-initial position is our main concern in this paper. Of all adverbials, time adverbials are most likely to appear clause-initially in PDE (see figure 3.3 in Hasselgård 2010: 56), probably because they have an additional text structuring function; see e.g. Virtanen (1992). Compared to place adverbials, the frequency with which they appear in the initial position is much higher: although, like place adverbials, time adverbials prefer the final position (55% according to Biber et al. 1999: 802), 20% appear in initial, and 25% in medial position. Presubject adverbials of place are more circumscribed. Biber et al. consider them “very marked” (Biber et al. 1999: 803), and they occur overwhelmingly clause-finally (90%, compared to 5% initial, and 5% medial). Their primary function in initial position has been described as framesetting (Chafe, quoted in Krifka 2007: 45), as in (18) (Ibid.); the adverbials are given in italics:

- (18) A: How is business going for Daimler-Chrysler?  
 B: [*In GERMANY*]<sub>Frame</sub> the prospects are [GOOD]<sub>Focus</sub>,  
 but [*in AMERICA*]<sub>Frame</sub> they are [losing MONEY]<sub>Focus</sub>.

Framesetting sets up the background that limits the scope of a proposition, hence the sense of contrast (‘here, but not there’). The important thing to note is that they do not contain a reference to the preceding discourse. Non-referential frame-setters are also perfectly possible in OE. OE has forward-looking referential clause-initial adverbials, as we have seen already in (10c); an example with *to cnawan* is (19) below:

Adverbial – Vfinite (TOCNAWAN) – subject – postfield:

- (19) Be ðam *oncnawað* ealle men þæt ge sind mine folgeras.  
 By that perceive all men that you are my followers  
 gif ge habbað lufe eow betwynan; <ÆCHom II, 40 300.32>  
 if you have love you between  
 ‘All people will recognize that you are my followers if you show love for  
 each other’

These are not frame-setters but part of the textual coherence strategies so typical of OE in which clauses are syntactically coordinated rather than subordinate, and linked to each other by means of correlative deictic elements.

In contrast, *Be þam* ‘by that’ in example (20) below is again backward-looking (it refers to Christ’s willingness to be born in a human body in order to suffer for the sake of Man’s redemption). It also shows the flexibility of OE in moving constituents like the object-NP *Cristes eadmodnysse* to the postfield, where it receives a special prominence, even though it is not particularly heavy in the sense that it contains a lengthy postmodifier like a long PP or a relative clause, which would be required as a condition for moving NPs in Heavy NP Shift in PDE. Note that, once more, it builds a CLAN-construction with the following clause, which serves to further explain in what way Christ was humble:

Adverbial – subject – Vfinite (MAGON) – V (TOCNAWAN) – [<sub>postfield</sub>object – postfield]:

- (20) *Be þam we magon tocnawan Cristes eadmodnysse, þæt se heilica God*  
by that we may perceive Christ’s humility, that the sublime God  
*hine sylfne swa geeadmette, þæt he ðam deaðe underhnað*  
himself so humbled that he the death suffered  
and þone deofol oferswyðde... <ÆLS (Memory of Saints) 113>  
and the devil overcame  
‘By that we may perceive Christ’s humility, that the sublime God so humbled  
himself that he allowed himself to suffer death, and overcame the devil’

Adverbial discourse-links are not restricted to the prefield but may freely occur in the other two adverbial positions in the middlefield, like *be þysum* ‘by these things’ in (21), and in the postfield, like *be þam hæðenum godum* in (22):

subject – Vfinite (MAGON) – [middlefieldadverbial] – V (TOCNAWAN) – postfield:

- (21) We magon be þysum<sup>5</sup> *tocnawan* þæt se mann, þe his gesyhðe næfð,  
we may by these perceive that the man who his sight not-has  
ne sceal he gedyrstlæcan, þæt he mæssige, þonne he ne gesyhð hwæt he  
not shall he presume that he celebrates mass when he not sees what he  
offrað Gode, hwæðer þe clæne, þe ful.  
offers God, whether or clean or foul  
‘We may by these things perceive that the man who has lost his sight  
should not presume to celebrate mass, as he cannot see whether what he is  
offering to God is clean or foul’ <ÆLET 1 (Wulfsgie CCCC 190) 148>

Note that (22) has two adverbial discourse-links, of which *her* ‘here’ occupies the clause-initial position while the *be*-PP is in the middlefield:

Adverbial – subject – Vfinite – TOCNAWAN – [postfield adverbial – postfield]:

- (22) her we magon *tocnawan* be þam hæðenum godum, hwilce mihte  
here we may perceive about the pagan gods which power  
hi hæfdon on gean þone ælmihtigan god.<ÆHom 22, 286>  
they have against the Almighty God  
‘Here we may perceive how much power the pagan gods have against  
Almighty God’

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<sup>5</sup> Or: ‘by this’ (dative singular). The passage in its entirety allows both interpretations.

Both (21) and (22) are, yet again, CLAN-constructions: *se mann ... he; be þam hæðenum godum ... hi.*

The final example shows two main clauses constructed along parallel lines. The first one is constructed with the verb *understandan*, and the second with *tocnawan*; they are synonyms here, both meaning ‘understand, interpret’ (*we should interpret Abraham as the Almighty Father... and we should interpret the sacrifice of Isaac as the Lord’s passion*); the relevant adverbials appear in italics

subject – Vfinite (SCEOLON) – UNDERSTANDAN/TOCNAWAN – [postfield Adverbial – object – ]

- (23) We sceolon understandan *on abrahame* þone ælmihtigan fæder.  
we should understand by Abraham the Almighty Father  
and *on Isaace* his leofan sunu urne hælend crist.  
and by Isaac his dear son our Saviour Christ  
*Be ðam* cwæð se heofonlica fæder.  
About that-one spoke the heavenly father  
þes is min leofa sunu ðe me wel licað.  
this is my dear son who me well pleases  
and we sceolon tocnawan *on isaaces offrunge* drihtnes ðrowunge.  
and we should understand by Isaac’s sacrifice Lord’s passion  
*Be ðam* cwæð se apostol paulus.  
About that-one spoke the apostle Paul

pæt god fæder ne sparode his agenum bearne.

that good father not spared his own child

ac for us eallum hine to deaðe sealde <ÆCHom II, 4 34.161>

but for us all him to death gave

‘We should interpret Abraham as the Almighty Father and Isaac his dear son, as our Saviour Christ. About him the heavenly father said: this is my dear son, who pleases me well. And we should interpret the sacrifice of Isaac as the Lord’s passion. About that [sacrifice] the apostle Paul said: the good father did not spare his own child but gave him up to death for our sakes.’

Each of these clauses is followed by a clause with an adverbial link (*Be ðam* ‘by that’). Such parallel structures – including the echoing *Be ðam cwæð se heofonlica fæder/Be ðam cwæð se apostol paulus* – are very typical of Ælfric’s polished style. Note the difficulty of translating these clause-initial *be* ‘about’-PPs into idiomatic PDE, for two reasons: (i) singular independent demonstratives can no longer be used to refer to people (see e.g. Huddleston & Pullum 2002: 1504), so that PDE has to translate the demonstrative in the first PP by a personal pronoun (about him’), while the referential relationship between the demonstrative in the second PP and the sacrifice of Isaac in the preceding clause is not as straightforwardly achieved as in PDE – idiomatic translations would spell such relationships out more explicitly: *about this sacrifice*. (ii) Clause-initial adverbials have become marked in PDE and are no longer unproblematically available as links to the immediate discourse.

Unlike preposed objects, clause-initial adverbials show a decline in referentiality over time in that they tend to encode new information more often in PDE than in EModE or LME; quantitative evidence in for this can be found in Pérez-Guerra (2005: 357ff); Los (2012); Komen



et al. (2014); Dreschler (2015: 242-265, 300-317). If clause-initial adverbials are less often referring (either forwards or backwards in PDE (cf. (18))), a loss in referentiality in these PPs over the years is just what we would expect.

To summarize: what the OE examples of *to cnawan* ‘understand’ show is that verbs of thinking and declaring have predominantly personal subjects in OE, even in argumentative prose where such subjects are likely to be generic rather than specific (‘we’, ‘you’, ‘people in general’). PDE would go for a much more impersonal style with non-agentive subjects, along the lines of constructions like *This parabel shows/This text should be interpreted as*. Such non-agentive subjects are likely to be discourse links, following a line of argument. The OE examples use adverbials to establish such links, and these adverbials are facilitated by the flexible clausal architecture of OE, where pre- and middlefield adverbial positions are not earmarked for specific adverbials, unlike clause-initial and clause-medial positions in PDE.

With the decline of adverbial discourse linking, and subjects taking over as the expression of choice for discourse links, there was a need for strategies to allow discourse links – whether animate or inanimate – to be expressed as subjects. One such strategy was new passives, like the passive ECM-construction with verbs of thinking and declaring that we discussed in the previous section, or passives like *He was prescribed lithium* which added RECIPIENTS to the thematic roles that can appear as subject (see Dreschler 2015 for a historical survey of “new” passives). Passives are clearly signalled by a formal construction; there were other strategies that involved a change in argument structure without formal marking. They are the topic of the next section.

#### 4. The rise of valency-alternations

This section discusses two further strategies that promote “permissive subjects”: middles, like *This book reads well*, and verbs with double argument structures, either causative/ergative pairs as in *John broke the vase/The vase broke* or the locative alternation seen in pairs like *Jill sprayed paint on the wall/Jill sprayed the wall with paint* (see eg. Levin 2006). A third development that led to new strategies, impersonal verbs (*Me likes*, cf. *me ... licað* in (23)) becoming personal verbs (*I like*), resulted in EXPERIENCERS being expressed by “proper” nominative subjects rather than by dative or accusative NPs; this development has been discussed extensively in the literature (see Allen 1995; Möhlig-Falke 2012) and will not be discussed here.

The rise of middles in the history of English is discussed in Hundt (2007). Middles are often associated with passives in that they perform a similar function, i.e. promoting an object (with the thematic role of PATIENT/THEME) to subject. Middles involve the intransitive use of a transitive verb. There are some genres in PDE that are particularly permissive in creating middles from scratch, as it were, showing that the pattern has acquired a dynamics of its own, allowing entire sets of verbs to be used as middles, with entities that appear as objects in the original transitive use appearing as subjects in the middle construction; one such genre is mail order catalogues, where Hundt found examples such as the following:

- (24) Matching hood *converts* into collar (Sears & Roebuck Catalogue) (Hundt 2007: 161)

Middles are a special case of causative/ergative valency alternations. Valency alternations are crosslinguistically common for a small set of verbs, typically with change-of-state meanings like *break*, *burn*, *open/close*, *begin/stop/continue*. Härtl (2003) identifies a number of conditions that need to be met for such verbs to occur as intransitives in German: the THEME/PATIENT argument must possess inherent properties that allow the change of state to proceed independently, without an agent. This explains why *zerreißen* ‘tear apart’ can be used intransitively with entities such as a *sail*, but not with a *picture* (Härtl 2003: 909). Conversely, transitive uses are impossible if the change of state cannot be conceptualized (in terms of “naïve physical reasoning” (907)) as being initiated by an agent: *verrosten* ‘rust’ or *verwittern* ‘weather’ can only be used intransitively. This accounts for the alternating argument structures in verbs like *break*, *burn*, *open/close*, *begin/stop/continue*, where both conceptualizations are possible. What is special about PDE is that entire classes of verbs partake in these alternations. Any de-adjectival verb, like *blacken*, *pretty up* or *liquify* participates (Francis and Sinclair 1994), as do many ‘manner of motion’ verbs:

- (25)      a. Water *seeped* through the roof of the tunnel.  
             b. The roof of the tunnel was *seeping* water. (Hawkins 1986: 58-61, from Rohdenburg 1974)
  
- (26)      a. The car *nosed* into the city traffic (Francis & Sinclair 1994: 198)  
             b. I *nosed* the car onto the tracks (Ibid.)

Consider also the more extreme cases below, with *post*, *ship* and *see*:

(27) ... this is the second time I've written this out. The first time – blogger messed up on me and it didn't *post* and I lost the whole thing. (Blogcorpus, 2059313.male.26.Student.leo.xml, Schler et al. 2006)

(28) Your order has *shipped*. (Amazon.com)

These intransitive uses violate the condition identified by Härtl that the entity must have an inherent property that allows the process to go ahead without an AGENT.

*See* in (29) is a transitive verb, but its subject is not the EXPERIENCER that would be expected on the basis of the conceptualization of a seeing-event:

(29) 2012 *saw* the second highest carbon emissions in half a century  
(Colin Schultz, smithsonian.com, March 7, 2013; accessed Oct 18, 2015)

A relevant example from the contrastive English/Portuguese pairs in Santos (1988) is (30):

(30) a. he pays – ele *paga*  
b. crime pays – o crime *compensa*

The rise of “permissive” valencies as in (24)-(26) has been investigated by Van Gelderen (2011). She shows that these flexible valency alternations are a relatively recent phenomenon, the result of two processes: transitive verbs acquiring intransitive counterparts, like the middle constructions in (24), and intransitive verbs acquiring transitive counterparts, as in the manner of motion verbs in (25)-(26).

In (24), (26a), (27) and (28), the “permissive subjects” appear to encode PATIENTS or THEMES (a hood, a car, a blogpost and a delivery order), but in (25b) we have a SPACE, in (29) a TIME, and in (30b) a SOURCE. These uses go well beyond providing an alternative expression for discourse linking adverbials; only (25b) and (29) can be argued to have a clause-initial PP-alternative (*Through the roof of the tunnel; In 2012*).

Van Gelderen (2011) notes that what seems to have caused the initial push may have been various losses in derivational morphology. There is a core set of verbs whose double argument structure is of long standing, like the causative/unaccusative pair in (31a-b):

- (31)      a. The ship *sank*.  
              b. The admiral *sank* the ship.

They can be traced back to Proto-Germanic causatives built on o-grade stems of intransitive verbs – both unaccusatives and unergatives – by means of a *-ja-* suffix, like *\*siŋkwana* ‘sink’ (intr.), corresponding to *sink* in (31a), which gave rise to causative *\*saŋkwjana*, ‘sink’ (tr.), corresponding to *sink* in (31b). Some of these pairs still have distinct forms in PDE (data from Ringe (2006: 253-254)):

- (32)      a. *\*ligjana* ‘lie’ (intr.) and *\*lagjana* ‘lay’ (tr.)  
              b. *\*rīšana* ‘rise’ (intr.) and *\*raizijana* ‘raise/rear’ (tr.)  
              c. *\*sitjana* ‘sit’ (intr.) and *\*satjana* ‘seat, set’ (tr.)

Many other pairs lost one of its members, with the remaining one taking over for both; PDE *sink* in (31a) would have been OE *sincan*, while PDE *sink* in (31b) had its own derived OE form

*sencan*, still surviving in ME as *sink/sench*. These mergers of intransitives with their causative counterparts are not specific to English but a general Germanic phenomenon; there are non-standard varieties of PDE and Dutch where *lie/lay* have merged, to *lay* (Du. *leggen*). One vector for such mergers is the fact that the perfects of unaccusatives, which select *be*, as in (33), cannot be distinguished from the passive of their causative counterpart:

- (33)      þa    wæs an    gereord    on      eallum mancynne. and þæt  
               then was one language among all      mankind      and the  
               weorc    *wæs    begunnen* ongean godes willan; <ÆCHom I, 22 318.17>  
               work    was      begun      against god’s will  
               ‘At that time all people spoke one language, and the work had been  
               begun/was begun against God’s will’

Van Gelderen’s (2011) investigation finds that OE already had quite a considerable number of transitive/intransitive (“labile”) verbs compared to Dutch and German, and that this number has been increasing ever since: 223 OE exclusively-intransitive verbs are reduced to only 30-40 in Modern English, while 80 “labile” verbs in OE increase to about 800 in PDE (van Gelderen 2011: 119, 122).

What is specific to English is the phenomenon of further mergers as a result of the loss of verbal prefixes. Van Gelderen particularly mentions the prefix *ge-*, and there are others; consider the following much-quoted example of a valency change without derivational morphology:

- (34)      a. They *loaded* hay onto the wagon  
               b. They *loaded* the wagon with hay.

The locative alternation of (34a-b) requires a formal contrast in Dutch and German, with (34a) using a simplex verb and (34b) a prefixed verb (usually with the prefix *be-*) (Brinkmann 1997). The increases in labile verbs have apparently over time acquired a dynamics of their own, allowing entire classes of verbs to appear with such subjects. The proliferation of “permissive subjects” may well outstrip the decline in referential adverbials linking to the previous discourse, so that the rise of subjects as the discourse link of choice cannot be expected to be a straightforward case of competition.

## **5. Adverbial discourse-links, “late subjects” and flexible argument structure in PDE**

Adverbial discourse-links do survive in one particular niche in PDE: subject-verb inversion, which should probably be analysed as the “late subject” construction rather than movement of the finite verb (for “late subjects” in the history of English, see Warner 2007). The information structure of its PDE instances have been investigated in Birner & Ward (1998). The construction has a discourse link as first constituent (either an adverbial as in (35) or a subject complement, in this case a passive participle, as in (36) – both in italics), which allows the subject to be in end-focus position. This is one of the marked constructions in PDE that function as escape hatches for subjects that are not discourse-old, which would compromise the natural flow of information in the canonical SVO order:

- (35) In the iron trade, enormous quantities of material are used for the manufacture of boilers and pipes; while the manufacturers of paint, putty, and other materials also do a brisk trade with market growers. *To these* must be added the various gas companies and colliery merchants, who provide thousands of tons of coke or anthracite coal to feed the furnaces attached to the glasshouses. [weathers-1913,1,7.154-156]<sup>6</sup>
- (36) This blue jug was one of the many objects found in the grave alongside ‘Ivory Bangle Lady’. *Also discovered* was an openwork mount of bone with the inscription ‘Hail, sister, may you live in God,’ indicating Christian beliefs.
- [http://news.bbc.co.uk/local/york/hi/people\\_and\\_places/history/newsid\\_8537000/8537231.stm](http://news.bbc.co.uk/local/york/hi/people_and_places/history/newsid_8537000/8537231.stm)

There is a connection with flexible argument structure in that corpus studies of subject-verb inversion has shown that they are particularly frequent with intransitives of transitive/intransitive pairs in PDE (as noted by Biber et al. 1999: 954) (discourse link in italics, verb in bold):

- (37) The care of his baggage made Paradis divide his men into two bodies, *between which* **marched** the Indians, called Coolies, who carried his chests. (*OED* 1763 R. Orme Hist. Mil. Trans. Brit. Nation I. 80)

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<sup>6</sup> References in square brackets [ ] are from the Parsed Corpus of Modern British English (Kroch, Santorini & Diertani 2010).



- (38) *Through his translucent skin **showed** the blue veins, his insides as visible and vulnerable as a tiny transparent shrimp. (Jane Rogers, *Her Living Image*, Chapter 10; Faber & Faber 1984; e-version Canongate Books 2012).*
- (39) *Round her **burned** iron-spiked circles of tapering candles, yellow-bright in the dark. Before her lay heaps of flowers. (BNC; Biber et al. 1999: 954)*
- (40) *Behind her **trailed** a gaggle of over-age girls-about-town all with their eyes open for the main chance. (BNC; Biber et al. 1999: 954)*

This suggest that flexible valency in PDE not only facilitates permissive subjects, as a way of encoding discourse links, but also plays a role in the positioning of subjects containing new information. In the earlier system, this may not have been a specific function of clause-initial (place) adverbial links. The different functionality of PDE (place) adverbial links is another reason why a decline in referential adverbials linking to the previous discourse and the rise of permissive subjects cannot be expected to be a straightforward case of competing structures.

## 6. Tail-head linking in Dutch and German narratives

There is clear quantitative evidence in Pérez-Guerra (2005), Komen et al. (2014) and Dreschler (2015) for the decline of adverbial discourse-linking of the type found in OE, as outlined in the

previous section, and there is a rise in “permissive subjects”. We saw that literal PDE translations of OE texts improve if we express linking adverbials as subjects, which suggests that at least some of the adverbial losses are compensated for by the subject taking over the discourse-linking function. Unlike other syntactic developments, like *have*-perfects taking over from *be*-perfects (Rydén & Brorström 1987; Kytö 1997) or *to*-infinitives encroaching on the domain of subjunctive clauses (Los 2005), this case cannot be supported by straightforward quantitative evidence of S-curves typical of competing structures. As we noted in the discussion of examples (24)-(30), the mechanisms that led to entire classes of verbs acquiring flexible argument structures have produced “permissive subjects” that do not have adverbial counterparts in Dutch and German, and by extension, probably not in OE either. There is also evidence that the need for discourse-linking itself experienced a decline. The evidence for this comes from contrastive psycholinguistic studies which show that Dutch and German narratives show a system of tail-head-linking that has no equivalent in PDE. The tail-head-linking is facilitated by the same type of prefield- and middlefield adverbial positions that we discussed in section 3.

Psycholinguistic studies demonstrate that German speakers show a higher degree of granularity in their descriptions than PDE (Carroll and Lambert 2003). Example (35) show that German speakers, asked to describe a picture, barge straight in with fine-grained descriptions of where various landmarks are:

- (41)      a. Auf den linken Seite ist eine Apotheke  
               On    the left    side    is a    drugstore  
               b. Vorne      im      Bild    ist eine Strasse  
               At-the-front in-the picture is a    street (Carroll and Lambert 2003: 269)

English informants, on the other hand, tend to establish the global topic first – the picture – and then go on to point out the existence of landmarks by using existential *there*, rather than specific place adverbials:

- (42)        This is a picture of a busy square  
              There is a square with a fountain (Ibid.)

This difference between the two groups of speakers suggests that the PDE speakers are less likely to use place adverbials. This is further supported by descriptions of events. An experiment described in Carroll, von Stutterheim & Nuese (2004) involved English and German retellings of episodes from a short narrative (a clay animation film *The Quest*). A Dutch corpus was constructed by van Ierland (2009) following the same procedure that gave rise to the corpus of PDE retellings; the Dutch corpus was further extended at the Radboud University Nijmegen by Bouwmans (2009) and myself.<sup>7</sup> These PDE and the Dutch retellings show up a contrast in the use of adverbial linking which shows that the Dutch informants use place adverbials much more frequently, even when retelling the same events. The different rates of adverbial usage between the two groups hinges on second mentions.

Both groups mention places as adverbials when such places become relevant in the narrative events. The examples in (43a)-(44a) show that both groups mention a grid when it first hoves into view, as an object on which the clay man, the protagonist of the story, finds himself lying after falling on his face. Once the grid has been mentioned (as in (43a)) and is presumably

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<sup>7</sup> The Dutch corpus consists of data collected by Suzan van Ierland (van Ierland 2009) with additional data collected by the author and Justine Bouwmans (Bouwmans 2009). All data were collected at Radboud University Nijmegen (53 retellings in all). The English data corpus used here is the one collected by Suzan van Ierland at Birkbeck College, London, with English (British and American) informants (van Ierland 2009: 206), augmented by data collected in Nijmegen (21 retellings in all).

totally activated and in focus in the hearers' minds, the English informants tend to make utterances like (43b1-3) which do not make explicit mention of the grid, even though it plays a part in what happens next: the clay man looks through it and spots running water. The single exception in the corpus is (43b4):

- (43)        a. he falls onto a kind of grid...
- b1. he looks down
- b2. he peers through below
- b3. he can see way down to the bottom
- b4. he can see the water down below *through the grid*

In contrast, the majority of the Dutch informants refer back to it in their b-utterances, using the prefield:

- (44)        a. hij valt met zijn buik op een soort rooster
- he falls with his belly onto a kind-of grid
- b. *Door dat rooster* ziet hij beneden water stromen
- through that grid sees he below water flow

There is a similar example of an instrument, a piece of rock that the protagonist uses to knock a hole in a boulder. Both groups mention the protagonist finding a piece of rock and picking it up (45a-46a), but the English informants leave it implicit in the b-utterance that describes its use:

- (45) so he finds another rock that's kind of smaller than this than this one, and  
he picks it up and he starts beating this rock, he starts trying to break this  
rock open

The Dutch informants mention it explicitly when they describe the beating action, using a pronominal adverb in the prefield adverbial position in (a) or the middlefield position in (b):

- (46) a. pakt een stuk rots, *daarmee* slaat hij op de waterplek  
takes a piece rock, there-with hits he on the water-spot  
'(he) takes a piece of rock, with this he hits the water spot'  
b. hij pakt een rots en slaat *ermee* op de steen waar het water valt  
he takes a rock and hits it-with on the boulder where the water falls  
'he takes a rock and hits with it on the boulder where the water is dripping'

The difference between the two groups can be described in terms of tail-head linking, a narrative technique in which each new move in a narrative is explicitly linked to what has gone before by means of repetition. If Old English is like Dutch and German, one of the responses to the decline in adverbial linking can have been less tail-head linking, and a more implicit descriptive style, which does not require place adverbials.

If this type of tail-head linking itself declines, this is another reason why a decline in referential adverbials linking to the previous discourse and the rise of permissive subjects cannot be expected to be a straightforward case of competing structures.

## 7. Conclusions

This paper has presented a survey of a number of phenomena that have been reported in the literature on the history of English and in contrastive crosslinguistics studies and links them in a scenario of change in which the functionality of clause-initial adverbials as linkers to the immediately preceding discourse is lost, with the role of discourse linking of the subject further extended. With the subject being the unmarked way to express discourse links in PDE, the functional load of the subject was increased. Discourse links are often non-agentive inanimates, and these are readily accommodated in PDE by a range of strategies for creating subjects: more options for passivization, and productive, flexible valency patterns, both developments that have given rise to crosslinguistically-unusual permissive subjects.

The best evidence to support a link between a decline in one structure and a rise in another is to be a quantitative investigation, but the difficulty is that there is unlikely to be quantitative evidence of a direct competition between discourse links expressed by adverbials and by subjects: (i) The flexibility of PDE verbs to acquire additional argument structure (intransitives developing a transitive use, transitives developing an intransitive use) has acquired a dynamics of its own, which is likely to have led to a proliferation of “permissive subjects” far beyond what might have been needed to compensate for the loss in referential adverbials (sections 2 and 4); (ii) the referential adverbials that are left seem to occur in the “late subject” construction (what has traditionally been called “locative inversion” or “subject-verb inversion” in PDE) that has the primary function of presenting new information (see section 5); this function does not appear to be the predominant function of clause-initial adverbials in OE, as we saw in

section 3; and (iii), adverbial links are no longer required as a mechanism to do tail-head-linking in narratives, as PDE narratives no longer appear to involve tail-head linking at all (see section 6); this would mean that the need for discourse-linking in narratives has itself decreased.

What is a matter of future research is a more detailed investigation into OE style, and a more fine-grained investigation of the use of the subject in narratives in the history of English as an expression of protagonists, non-protagonists, and discourse links.

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